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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/810,955

03/26/2004

Robert C. Arnott

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25280

7590

09/22/2008

Legal Department (M-495)  
P.O. Box 1926  
Spartanburg, SC 29304

EXAMINER

MATZEK, MATTHEW D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/22/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/810,955	<b>Applicant(s)</b> ARNOTT, ROBERT C.	
	<b>Examiner</b> MATTHEW D. MATZEK	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/14/2008 has been entered.

***Response to Amendment***

2. The amendment dated 7/14/2008 has been fully considered and entered into the Record. Claims 21-31 remain active. The previous grounds of rejection used to reject claims 21-31 are maintained, but the basis for the rejections are clarified below.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 21, 23 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 5,981,407) in view of Bacon, JR. (US 2002/0192459 A1).

a. Matsumoto et al. teach a flame retardant fabric (Abstract) comprising a halogen containing polyester fiber (col. 2, lines 27-30). The halogen containing fiber may comprise a phosphorus compound such as tris(2,3-dichloropropyl) phosphate (col. 3, lines 15-17). The applied fabric is woven (Examples) and may be printed (abstract).

Matsumoto et al. fail to teach the use of a protective film for the fabric.

b. Bacon, JR. disclose that various articles, such as retroflective signs and protection apparel possess an ink receptive layer that is in turn coated with a protective cover film or

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top coat to impart durability and stain resistance [0003]. This uppermost layer of said retroflective articles are not receptive to ink printing, but the invention of Bacon, JR. allows for printing while also offering desired protective properties. Bacon, JR. discloses a coating consisting of soft and hard component polyurethanes. The soft polyurethane has an elongation ranging from 200 to 600% and the hard polyurethane an elongation of up to about 150% [0007-8]. The ratio of the soft component to the hard component ranges from about 9:1 to 3:2 [0012]. For enhanced weatherability it is preferred that all the components are substantially aliphatic [0032]. The polyurethanes may be synthesized from polyester polyols or polyether polyols [0036]. These teachings demonstrate that the preferred polyurethanes are aliphatic polyether polyurethanes and aliphatic polyester polyurethanes. The coating is preferably transparent [0006].

c. Since Matsumoto et al. and Bacon, JR. are from the same field of endeavor (i.e. protective fabrics), the purpose disclosed by Bacon, JR. would have been recognized in the pertinent art of Matsumoto et al.

d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Matsumoto et al. with the coating of Bacon, JR. motivated by the desire to provide the fabric with a flexible coating that is printable and stain resistant (abstract).

e. The coating's add-on weight percentage is a result-effective variable affecting the toughness and flexibility of the coated fabric. Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the claimed ratio, it would have been obvious to one of ordinary skill in the art to optimize this result-

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effective variable by routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

f. Although neither Matsumoto et al. nor Bacon, JR. explicitly teach the claimed finish with a stiff hand or flammability, it is reasonable to presume that said properties are inherent to combined invention. Support for said presumption is found in the use of like materials (i.e. a blend of polyurethanes for imparting toughness and flame retardant cloth). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties of a finish with a stiff hand and flammability would obviously have been present once the combined invention is provided. Reliance upon inherency is not improper even though the rejection is based on Section 103 instead of Section 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80.

4. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 5,981,407) in view of Bacon, JR. (US 2002/0192459 A1) as applied to claim 21 above, and further in view of Yilgör et al. (US 5,521,273).

Matsumoto et al. discloses the claimed invention except that woven fabrics instead of knitted or nonwoven fabrics, Yilgör et al. shows that woven, knitted and nonwoven fabrics are equivalent structures known in the art (col. 5, lines 22-26). Therefore, because these materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute woven fabrics for nonwoven or knitted fabrics.

***Response to Arguments***

5. Applicant's arguments filed 7/14/2008 have been fully considered but they are not persuasive.

6. Applicant argues that the Bacon reference fails to teach the application of the coating to clothing. Examiner has modified his combination of the Bacon and Matsumoto references. Both references are directed to protective articles. The motivation to combine the two references is derived from Bacon in that he teaches the use of his coating on protective articles allowing them durability and ink receptivity at the same time.

7. Applicant argues that the combination of Matsumoto and Bacon destroys the invention of Matsumoto in that Bacon fails to teach or suggest a fire resistant coating. The article of Matsumoto would remain fire resistant in that the fabric would still be fire resistant, regardless of whether or not the coating was fire resistant.

8. Applicant argues that Yilgör fails to overcome the deficiencies of Matsumoto and Bacon. Examiner has only relied upon Yilgör to demonstrate that knitted, woven and nonwoven fabrics are equivalent structures known in the art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. MATZEK whose telephone number is (571)272-2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571.272.1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/  
Patent Examiner, Art Unit 1794